

ABSTRACT OF THE DISCLOSURE

5 A transcutaneous immunization system delivers antigen to
immune cells without perforation of the skin, and induces an
immune response in an animal or human. The system uses an
adjuvant, preferably an ADP-ribosylating exotoxin, to induce
an antigen-specific immune response (e.g., humoral and/or
cellular effectors) after transcutaneous application of a
10 formulation containing antigen and adjuvant to intact skin of
the animal or human. The efficiency of immunization may be
enhanced by adding hydrating agents (e.g., liposomes),
penetration enhancers, or occlusive dressings to the
transcutaneous delivery system. This system may allow
activation of Langerhans cells in the skin, migration of the
15 Langerhans cells to lymph nodes, and antigen presentation.

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